#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022174 Address: 333 Burma Road **Date Inspected:** 24-Mar-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Li Hua Jie **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Segments

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 13AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007AD-038, Side Plate to FL3. The welder is identified as #037743 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Cross Beam 17

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB3001A-017-017, Cantilever Bracket top flange to Edge Plate at panel point 112.5. The welder is identified as #044504 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

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Segment 12CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE12C-022, Side Panel to Bottom Panel. The welder is identified as #040673 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-345-SMAW-2G (2F)-FCM-repair-1 for WR20401.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Li Yang and Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 13AE

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate to Bottom Plate longitudinal splice, cross beam side.

Cross Beam 18

This QA Inspector observed cross beam 18 was brought into the Trial Assembly yard.

Bay 14

This QA Inspector observed Welder Qualification using the Shield Metal Arc Welding (SMAW) process for Groove Weld Qualification (Complete Joint Penetration) for plate of unlimited thickness in the 4G (overhead) positions.

Position, Process, WPS, Test Plate ID# and name are as follows:

4G

**SMAW** 

WPS-B-P-2214-B-U2a-FCM-1

037779 Du Heng Hua

067588 Dong You Chun

067707 Wei Jun

069493 Li Guang Zhu – VT reject by ZPMC QC

070432 Wan Zheng

067520 Liu Ya

067079 Liu Xiae Lin

066236 Liu Xie

066683 Zhang Shan Lun – VT reject by ZPMC QC

037997 Guo Deng Yun

066733 Ye Bing

066002 Xu Chang Xue

# WELDING INSPECTION REPORT

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ZPMC QC CWI Sun Tian Liang was present during welder qualifications

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.









## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

| <b>Inspected By:</b> | Hernandez, Dan | Quality Assurance Inspector |
|----------------------|----------------|-----------------------------|
| Reviewed By:         | Miller,Mark    | QA Reviewer                 |